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(54) A service wall structure.

(57) A service wall constructed from at least two mutually connectable and free-standing wall-sections (1). Each section (1) includes at least two mutually separate cable channels (5, 6, 7) which extend in the longitudinal direction of the section (1) and which are intended to accommodate electric cables, telecommunication cables and data communication cables. The wall-section also includes a ventilation channel (4) which extends in the longitudinal direction of the section (1) and which is separate from the cable channels.

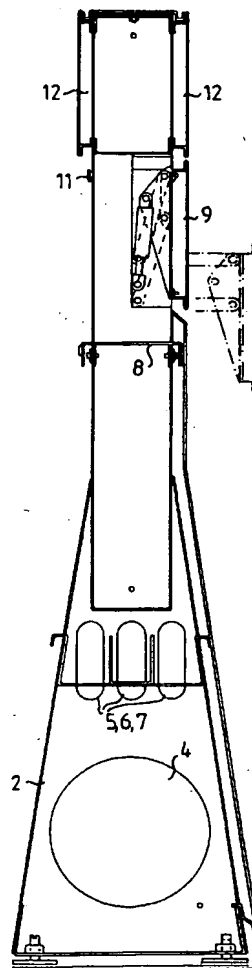


FIG.2

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The present invention relates to a service wall structure which comprises two mutually connectable, freely-standing wall-sections.

It has earlier been common practice to divide large areas, such as office areas, into smaller working areas with the aid of screening walls. Although this enables the areas concerned to be utilized with greater flexibility, this subdivision of present-day office spaces often necessitates the troublesome installation of a large number of electrical cables for the supply of electricity, and for telecommunication and computer communication purposes. As a result, a large number of cables are often laid along the screening walls, more or less freely over some areas. The present-day use of a large number of electrical apparatus and computers also results in the generation of high levels of heat in the working areas concerned, and when moveable screening walls are used, it is also difficult to achieve satisfactory ventilation and to remove effectively excess heat from each working area.

The object of the present invention is to provide a screening wall construction with which the aforesaid drawbacks associated with earlier known screening walls are avoided.

This object is achieved by means of the invention which has the characteristic features set forth in the following Claims.

The invention will now be described in more detail with reference to a non-limiting exemplifying embodiment thereof illustrated in the accompanying drawings, in which Figure 1 is a schematic, perspective view of a section of a service wall or screen constructed in accordance with the invention; Figure 2 is a schematic cross-sectional view of an inventive service wall-section taken vertically; Figures 3, 4 and 5 are schematic views of the end wall-sections of an inventive wall structure, taken at mutually different heights; and Figure 6 is a schematic, perspective view of a corner section of the inventive service wall structure.

Figure 1 thus illustrates a wall-section 1 for use in a service wall constructed in accordance with the invention. In use, several such wall-sections are connected side-by-side. Although the wall-sections may have a configuration which varies slightly from wall-section to wall-section, all of the wall-sections will comprise a base-part 2 which is broadest nearest the floor and which tapers upwards to a given height, above which the wall-section comprises generally straight wall-parts 3 of constant thickness, as illustrated in Figure 1. The base-part 2 may appropriately have a height which corresponds to the height of a standard desk, i.e. a height of about 700 mm.

Figure 2 is a cross-sectional view taken vertically through a wall-section 1, and it will be seen from the Figure that there is provided at the bottom of the base-part 2 a cavity which accommodates a ventilation

channel 4 which extends along the bottom of the base-part 2, i.e. in the longitudinal direction of the wall-section. Arranged above the ventilation-channel cavity in the base-part 2 are three mutually separated cable channels 5, 6, 7, which also extend through the wall-section 1 in its longitudinal direction. These cable channels 5, 6, 7 are intended to accommodate electrical cables, telecommunication cables and data communication cables, each separated from the other in a respective channel 5, 6, 7. Mounted in the straight part of the wall-part 3 above the cable channels 5, 6, 7 is a profiled bar 8, which also extends in the longitudinal direction of the wall-sections and which is intended to support electric connectors to which the cables in the cable channel 5, 6, 7 can be connected. In order to provide access to the electrical connectors and the profiled bar 8, there is mounted above the bar in the straight part of the wall-part 3 a pivotal flap 9 through which access can be had to the interior of the wall-part 3 of said wall-section and enable external apparatus to be connected to the electrical connectors mounted on the profiled bar 8.

A ventilation opening connected to the ventilation channel 4 in the bottom of the wall-section may be provided in the straight wall-part 3, above the flap or hatch 9 in the upper part of the wall-section 1. As an alternative to the central ventilation, there may also be provided a personal comfort unit which includes a fan by means of which ventilation in the working area concerned can be controlled.

As illustrated in Figure 3, a fixture for the connection of a lamp fitting 10 may also be mounted in the upper part of the straight wall-part 3 of the wall-section 1.

Support profiles and the like for supporting computer equipment, such as a display screen, for example, may be mounted in the straight wall-parts 3.

The wall-parts are also preferably provided with fittings 11 on which cladding panels 12 can be mounted, so as to cover the longitudinally extending sides of the wall-sections. Correspondingly, further cladding panels may be fitted to the free, end-sides of the wall-sections.

Figure 6 illustrates the construction of a corner section for connection to the wall-sections 1, thereby to enable an angled service wall to be constructed. The corner section also includes channels for ventilation and cables corresponding to those in the straight wall-sections 1.

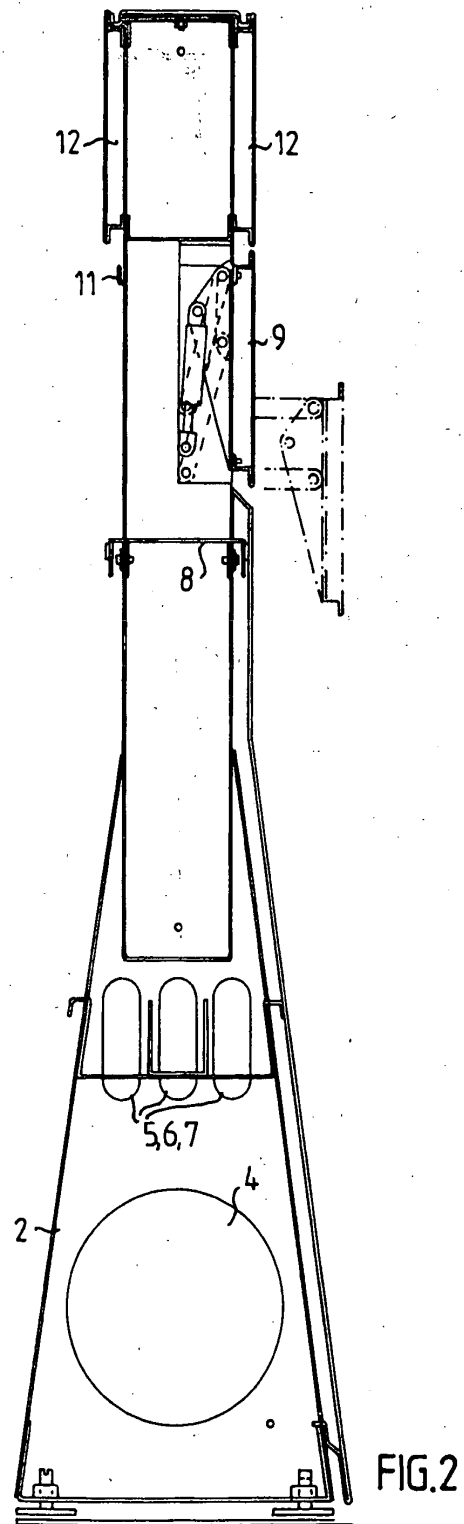
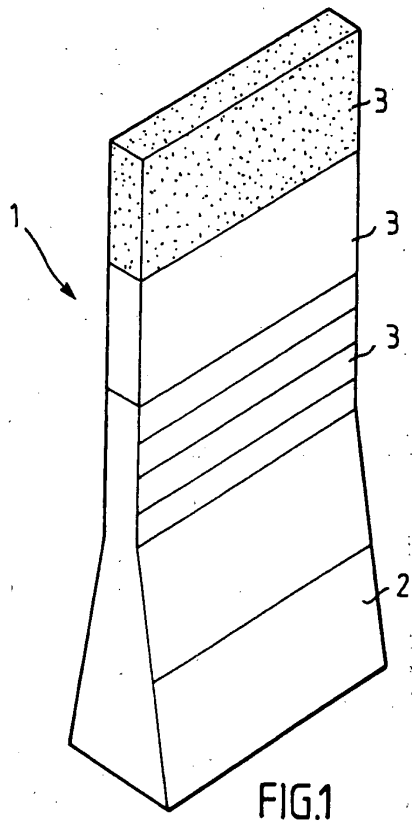
## Claims

1. A service wall constructed of at least two mutually connectable, free-standing wall-sections (1), characterized in that each section (1) includes at least two mutually separated cable channels (5, 6, 7) which extend in the longitudinal direction of

the sections (1), and a cavity which is separate from said channels and which is intended to accommodate a ventilation channel (4) which also extends in the longitudinal direction of the section.

unit is mounted in the upper part of the wall-section (1).

2. A service wall according to Claim 1, **characterized** in that each section (1) includes three, mutually separate cable channels (5, 6, 7) for the separate accommodation of electrical cables, telecommunication cables and data communication cables. 5
3. A service wall according to Claim 1 or 2, **characterized** in that the ventilation-channel cavity is disposed at the bottom of the wall-section (1). 10
4. A service wall according to Claim 3, **characterized** in that the wall-section (1) has at the bottom thereof a base-part (2) of greater width and tapers upwardly. 15
5. A service wall according to Claim 4, **characterized** in that the base-part (2) extends up to a given height; and in that above this height, the wall-section (1) has straight wall-parts (3) of generally constant thickness, wherein the wall-section (1) above said base-part (2) may include different numbers of straight wall-parts (3) so as to obtain wall sections of different heights. 20
6. A service wall according to Claim 1, **characterized** in that the wall-sections (1) have provided therein openings that are covered by openable flaps (9) and in which electric connectors for the connection of electric plugs, telephone plugs, computer contacts and the like are disposed. 25
7. A service wall according to any one of the preceding Claims, **characterized** in that the wall includes support devices for supporting computer equipment suspended on the wall-section. 30
8. A service wall according to any one of the preceding Claims, **characterized** in that each of the wall-sections (1) is provided at its upper part with means for connecting a lamp fitting (10). 35
9. A service wall according to any one of the preceding Claims, **characterized** in that the longitudinal sides of the wall-section (1) and the free end-walls of the wall-sections are covered with cladding panels (12) constructed so as to enable said panels to be readily hooked onto the wall-section (1). 40
10. A service wall according to any one of the preceding Claims, **characterized** in that a ventilation 45



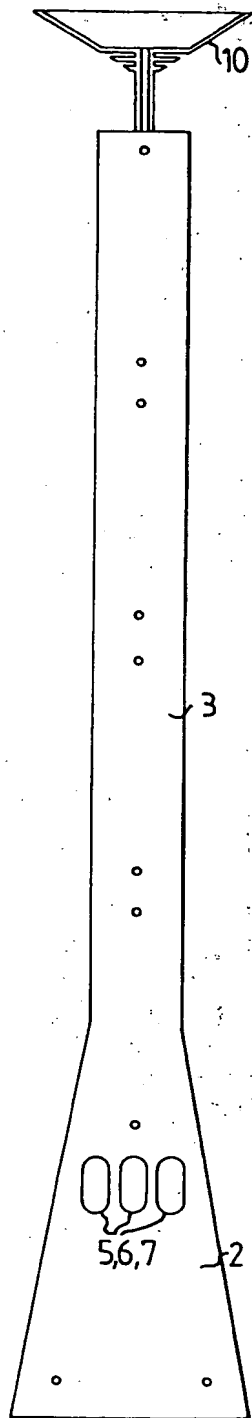


FIG. 3

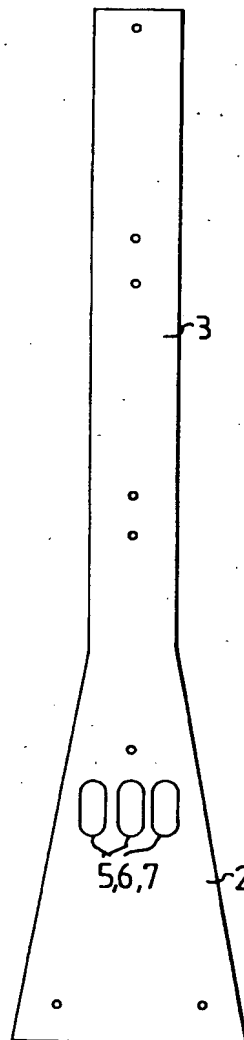


FIG. 4

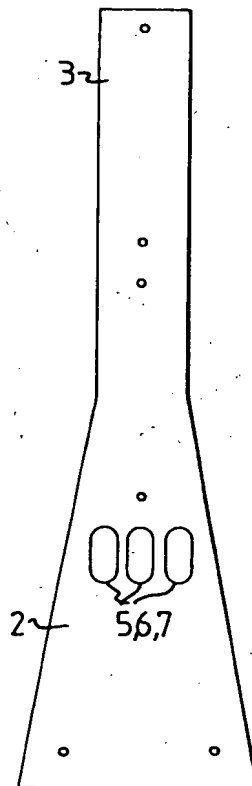


FIG. 5

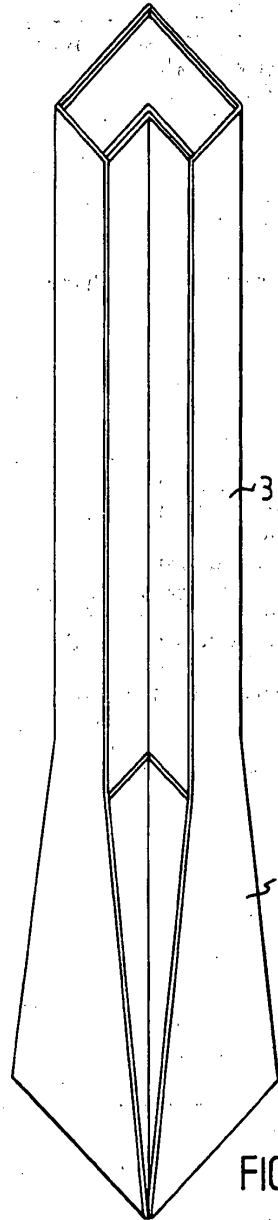


FIG. 6

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## EUROPEAN SEARCH REPORT

Application Number

EP 91 85 0252

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.5)
Y A	EP-A-0 200 514 (VICKERS PUBLIC LIMITED COMPANY) * page 1, line 7 - page 2, line 4 * * page 7, line 22 - line 31 * * page 11, line 28 - page 12, line 27 * * page 13, line 6 - line 19; figures 1,6,7,17,22 *	1,2,6,9 7	E04B2/74
Y	GB-A-2 127 139 (YOSHIDA KOGYO KK)  * page 1, line 115 - page 2, line 17; figures 1-3 *	1,2,6, 7-9	
Y	EP-A-0 174 426 (HERMAN MILLER INC.) * page 7, line 28 - page 8, line 17 * * page 9, line 27 - page 10, line 35; figures 1-4,6 *	1,7	
Y	EP-A-0 027 001 (HAUSERMAN LIMITED) * page 6, line 16 - page 7, line 15; figure 1 *	1,8	
A	FR-A-2 637 642 (CHENEL GUY GILBERT) * page 4, line 21 - line 35; figures 3,5,7 *	1,4,5	TECHNICAL FIELDS SEARCHED (Int. Cl.5)
A	DE-A-2 438 502 (WEKA METALLBAU ULM WALTER UND KUNZLI) * page 6, line 20 - page 7, line 11; figures 1,9 *	1,6	E04B
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 17 JANUARY 1992	Examiner BARBAS A.
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

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